

INGRADE SYLVANIA CORPORATION

TECHNICAL DATA

SYLVANIA TYPES 7D7 & 21A7

Triode Hexode Converters

TEMPERATURE RATINGS AND CHARACTERISTICS

Heater Voltage (Nominal)	Type 7D7	7.0	Volts
Heater Voltage (Nominal)	Type 21A7	21.0	Volts
Heater Current (Nominal)	Type 7D7	0.480	Ampere
Heater Current (Nominal)	Type 21A7	0.160	Ampere

Direct Inter-electrode Capacitances:*

Hexode Grid (G ₁) to Hexode Plate	0.07	uuf.	Max.
Hexode Grid (G ₁) to Oscillator Plate	0.1	uuf.	Max.
Hexode Grid (G ₁) to Oscillator Grid	0.3	uuf.	Max.
Oscillator Grid to Oscillator Plate	2.0	uuf.	
Hexode Grid (G ₁) to all other Electrodes (r-f input)	5.5	uuf.	
Oscillator Plate to all Electrodes except Oscillator Grid (Oscillator Output)	2.5	uuf.	
Oscillator Grid to all Electrodes except Oscillator Plate (Oscillator Input)	9.5	uuf.	
Hexode Plate to all Electrodes (Mixer Output)	8.0	uuf.	

*Measured with Standard Tube Shield.

OPERATING CONDITIONS AND CHARACTERISTICS

Heater Voltage	Type 7D7	6.3	Volts
Heater Voltage	Type 21A7	18.9	Volts
Plate Voltage (Hexode)		250	Volts Max.
Control Grid Voltage (Hexode Grid G ₁)		-3	Volts
Screen Voltage (Hexode Grids 2, 4, & 5)		100	Volts Max.
Oscillator Plate Voltage (Triode) **		250	Volts Max.
Oscillator Grid Resistor (Triode)		50000	Ohms
Plate Current (Hexode)		1.3	Ma.
Screen Current (Hexode)		2.8	Ma.
Oscillator Plate Current (Triode)		5.0	Ma.
Oscillator Grid Current (Triode)		0.4	Ma.
Plate Resistance (Hexode)		1.5	Megohms
Conversion Conductance		275	umhos
Conversion Conductance (E _{o1} = -20)		2	umhos

** Applied through 20000 ohms series resistance.

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HYGRADE SYLVANIA CORPORATION

TYPES 7D7 & 21A7 continued-

TRIODE CHARACTERISTICS

Plate Voltage	150	Volts Max.
Grid Voltage	-3	Volts
Plate Current	10.5	Ma.
Plate Resistance	7000	Ohms
Mutual Conductance	2500	umhos
Amplification Factor (Approx.)	17.5	

Base - "Loktal" 8 pin
Bulb - F-9

Max. overall length	-	3 5/32"
Max. diameter	-	1 3/16"
Max. seated height	-	2 5/8"

BASING

- Pin #1 - Heater
- Pin #2 - Hexode Plate
- Pin #3 - Triode Plate
- Pin #4 - Triode Grid & Hexode Grid #3
- Pin #5 - Hexode Grids #2, 4, & 5
- Pin #6 - Hexode Grid #1
- Pin #7 - Shield & Cathode
- Pin #8 - Heater